

KEVIN BOR-KAE HWANG

255 N 400 W Apt 2103, Salt Lake City, UT 84103 • (734) 548-7072 • borkaehw@umich.edu

LinkedIn: <https://www.linkedin.com/in/borkaehwang> • GitHub: <https://github.com/borkaehw> • Portfolio: <https://borkaehw.github.io>

EDUCATION

University of Michigan

Sep. 2016-Apr. 2018

MS in Electrical and Computer Engineering (Signal Processing and Machine Learning) (GPA: 3.86)

Ann Arbor, MI

- Courses: Operating Systems, Database, Machine Learning, Self-Driving Car, Big Data Systems, Matrix Methods, Probability, Computer Vision, Mining Large-Scala Graph Data

National Tsing Hua University

Sep. 2011-June. 2015

BS in Electrical Engineering (Signal Processing) (GPA: 4.05/4.3, overall class ranking: 1/56)

Hsinchu, Taiwan

- Won the Academic Achievement Award (top 3 students in fall 2012)
- Courses: Digital Signal Processing, Operating Systems, Data Structures, Computer Architecture, Signals and Systems

WORK EXPERIENCE

Lucid Software, Inc.

June. 2018-Present

Software Engineer, Development Tools Team

South Jordan, UT

- Developing Bazel, a Google's open source build tool written in Java
- Maintaining rules_scala, a rule for Bazel to perform a series of actions for Scala development
- Targeting continuously reducing the build cost and improving build efficiency of the entire organization

University of Michigan Transportation Research Institute

Sep. 2017-Present

Programmer, CMISST Research Group

Ann Arbor, MI

- Developing a Michigan crash data visualization tool in D3.js
- Maintaining front-end JavaScript and a Codelgniter PHP web server

Clinic, Inc.

May. 2017-Aug. 2017

Software Engineer, Finie for the Family back-end team

Ann Arbor, MI

- Designed and developed a monthly budget tracking feature for conversational AI assistant, allowing the user to manage their budget through voice commands
- Implemented a family assistant for managing budgets, shopping lists, and notifications using natural language processing
- Used Python for back-end logic computation; utilized Django framework to interact with MySQL database
- Developed a web-based chatbot interface with HTML, CSS, JS

PROJECTS

Multi-class AdaBoost Algorithm Comparison

Nov. 2016-Dec. 2016

- Programmed 3 different versions of the AdaBoost algorithm (M1, M2, SAMME) with Matlab
- Built a decision tree as weak learner for AdaBoost algorithms
- Investigated the pros and cons of AdaBoost algorithms; M2 is accurate for small dataset with few classes, SAMME is fast with large dataset

2D Indoor Positioning System in an Android Game App

Jan. 2014-Jan. 2015

- Developed an Android game app, demonstrate a player's movement in real-time, with 1s latency
- Implemented RSSI and INS as distance measurements, achieving a 20% accuracy improvement with a Kalman filter
- Awarded research funding for honorable recognition from National Science Council (NSC) in Taiwan

Augmented Reality Implementation

Dec. 2014-Jan. 2015

- Implemented coordinate transformation from real world to virtual world using OpenCV
- Used a webcam to capture images and projected a moving 3D virtual character on those images

SKILLS

Languages: Python, Ruby, Scala, Java, C/C++, Go

Databases: SQL, Oracle SQL*Plus, MySQL

Web: HTML, CSS, JavaScript (jQuery, D3.js, Node.js, Angular), Bootstrap, PHP (Codelgniter)

Tools: Git, MATLAB

LEADERSHIP

Prime Organizer, Graduate Student Association Activity Department

Nov. 2014-Jun. 2015

- Coordinated an Escape Room event; attracted over 200 participants and generated over \$1000 in revenue

President, NTHU HSNU&ZS Alumni Association

Aug. 2012-Aug. 2013

- Elected as president by over 100 members and organized 12 activities annually aiming to enhance connections among over 200 alumni
- Organized 3 large events: summer camp, university expo, Christmas carnival, over 200 participants in each event